

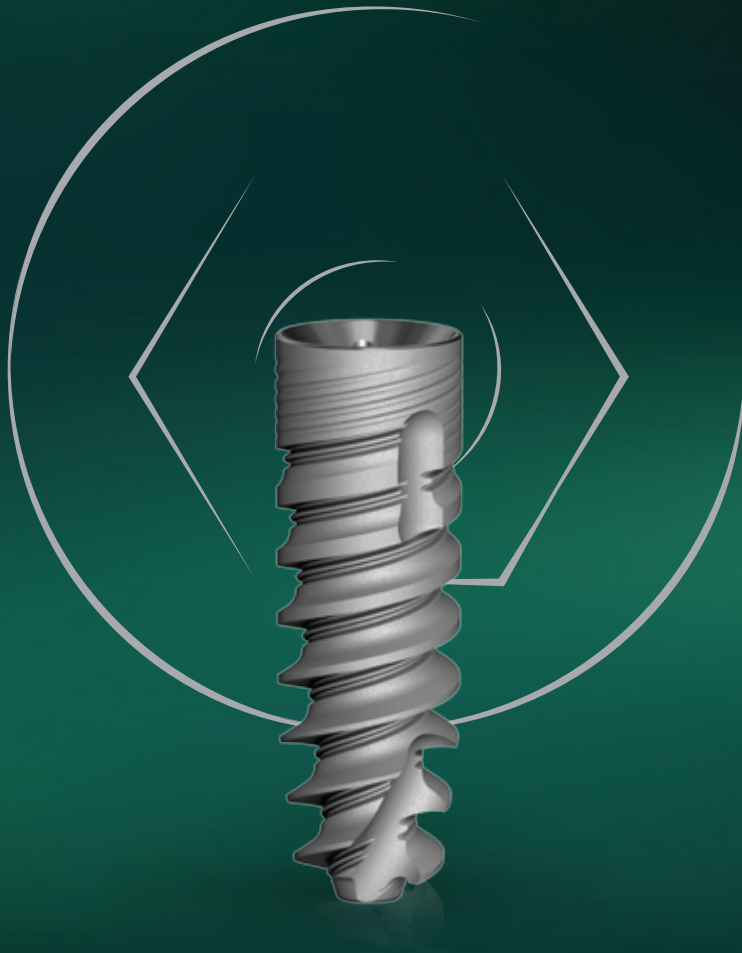
neo

THE NEXT SENSATION

by Alpha-Bio Tec.







neO

## THE NEXT SENSATION

by Alpha-Bio Tec.

**Alpha-Bio Tec. is proud to present the next sensation of dental solutions - the NeO implant system.**

NeO is the next generation of the company's original spiral implant. It is based on more than 28 years of proven clinical know-how and rooted in the company's values of high-quality, innovation, best value for money and simplicity.

NeO is a comprehensive, cutting-edge implant that would easily penetrate and navigate the osteotomy of all bone types while preserving the bone. NeO turns even the most complicated clinical cases into simple ones along with reliability and long term esthetic results.

NeO is balanced to perfection due to its state-of-the-art patent pending design which combines innovative stress reduction elements and primary stability enhancers.

NeO is powerful, yet remarkably gentle to the bone.

**Experience NeO to fully understand how brilliant it is!**

# Design Features and Benefits

Years of experience in product development and state-of-the-art technology enables Alpha-Bio Tec. to deliver high-quality implants with unique design features that result in clinical advantages:

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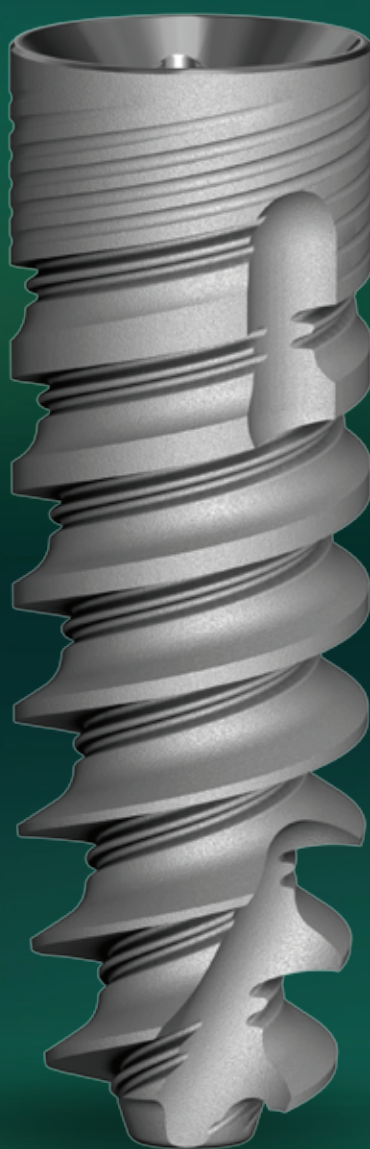
**1 SMART CHOICE  
2 PLATFORMS**



**Conical Hex  
Connection (CHC)**  
Ø 3.2, Ø 3.5



**Internal Hex  
Connection (IH)**  
Ø 3.75, Ø 4.2, Ø 5.0



.....

**CORONAL AREA**

.....

**THREADS**

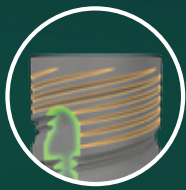
.....

**BODY AND CORE**

.....

**APICAL PART**

**PATENT  
PENDING**

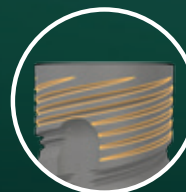


#### Design Features:

- Platform switching
- Micro threads
- Cutting flutes

#### Clinical Advantages Benefits

- Reduced pressure on cortical part
- Gentle, delicate cutting
- Improved bone preservation
- High initial stability
- Long term and stable esthetic results

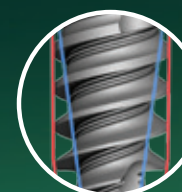
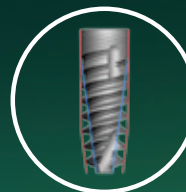


#### Design Features:

- Unique threads shape
- Double threads with 2.4mm step
- Two micro threads
- Variable threads design

#### Clinical Advantages Benefits

- High cutting efficiency
- Optimal bone condensing
- Fast insertion
- Excellent bone grip
- Greater surface area (BIC), profile surface increased by 20%



#### Design Features:

##### Implant outer line:

- Straight coronal part
- Slightly tapered body
- Tapered apical part
- Tapered core

#### Clinical Advantages Benefits

- Optimal bone condensing
- High primary stability
- Reduced pressure along implant's body



#### Design Features:

- Narrow apex
- Sharp and deep threads
- Condensing flutes
- Centering feature and gripping tips

#### Clinical Advantages Benefits

- High & firm primary engagement
- Easy navigation and penetration
- High cutting efficiency

# Scientific Data

Special attention was taken in evaluating all sections of the implant: coronal, body and apical to ensure consistent & outstanding clinical results with regards to the implant profile

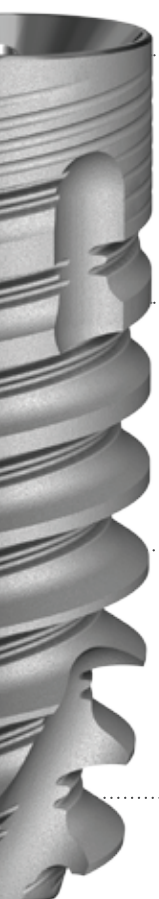
## Histological Studies

### Score of Bone to Implant Contact is up to 94%

Histologic evaluation showed significant osseointegration with healthy young woven bone 1 month after implantation.

The average BIC value was 87.24% while the maximum value was 94% .

The perfect demonstrated osseointegration is due to the unique design of the NeO implant profile and with regards to a high surface purity.



#### Coronal Area

(Magnification x 10)

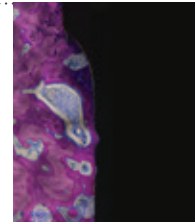
Overgrowth of the bone above of implant shoulder (white Circle)



#### Coronal Flute Area

(Magnification x 10)

Woven bone is detected at the coronal flute area showing osseointegration, demonstrating an attractive implant surface which encourages good growth during wound healing of the prepared osteotomies.

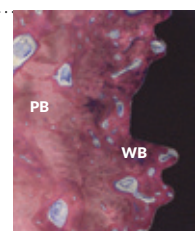


#### Implant Micro and Macro Threads

(Magnification x 100)

There is a perfect adhering between the new bone and implant surface which creates a close adaptation to macro and micro-design of NeO implant body. This adaptation is possible also due to the perfect clean surface of the implant.

**Microthread increase implant contact surface by 20%**



#### Apical Area

(Magnification x 100)

A tapered narrow apical section with deep and sharp threads enables ideal retention in soft and spongy bone.



★ Implant cervical micro threads

**WB:** Zone of young woven bone filling the micro-gap between implant and osteotomy

**PB:** Pristine bone

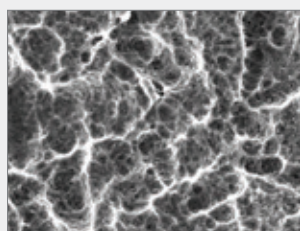
## NeO's Surface NANOTEC™

**NanoTec™** implant surface is of a hybrid type and is achieved through a complex process that involves large particles (20-40 microns) sandblasting and a double thermal etching for the creation of micro & nano pores (sized 1-5 microns). This unique process creates a high surface area differentiation, increases the three dimensional (3D) surface area and thus, enables a more intense absorption of blood and plasma proteins directly into the implants micropores immediately after the implant is placed. State-of-the-art surface treatment technologies at the Alpha-Bio Tec. manufacturing facility ensure unified surface treatment application and precision.

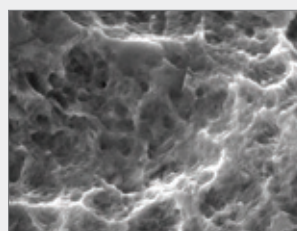
### **NanoTec™ implant surface process advantages:**

- Increased early BIC (Bone to Implant Contact)
- High and long term BIC
- Accelerated and improved osseointegration process
- Increased secondary stability
- Shortened healing period
- High success rate

### **SEM of NeO implant surface**



Surface morphology  
of the implant  
(x3000 Magnification)



Surface morphology  
of the implant  
(x12000 Magnification)

## NeO's Clinical Indications

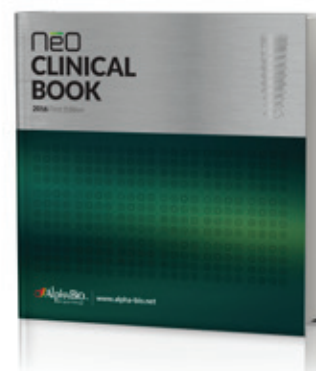
**Clinical studies have shown the advantages of using NeO in the majority of clinical procedures, especially complicated clinical cases such as :**

- Extreme bone defects
- Full and partial immediate implantation and immediate loading
- Implantation and simultaneous guided bone regeneration and/or splitting crest technique
- Extreme narrow alveolar ridges (< 4mm)
- Closed and open sinus lift procedures

NeO's Scientific overview, pre-clinical study, implant surface purity and Neo's performance - treatment concepts and indications are all presented in NeO's comprehensive Clinical Book.

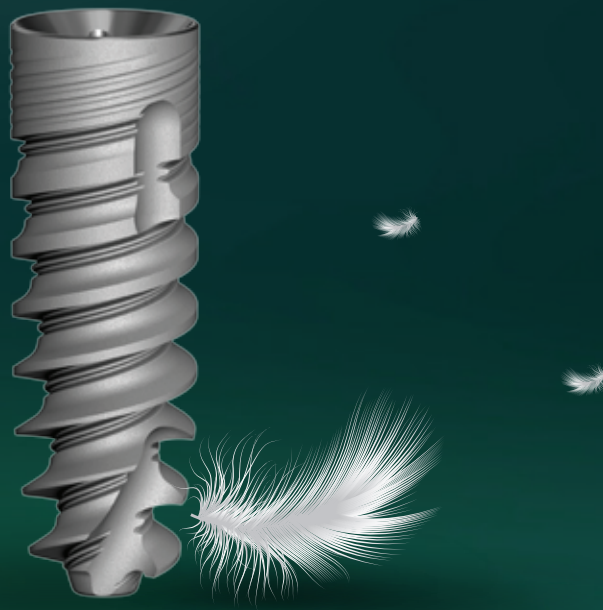


Scan to View  
Clinical Book



# Balanced to Perfection

With innovative stress reduction elements designed together with primary stability enhancers, NeO is truly balanced to perfection. Powerful, yet remarkably gentle to all bone types.



## Gentle to the Bone

The **platform switching** is proved to preserve the cortical bone around the implant neck by physically repositioning of the implant-abutment connection away from the bone level.

The coronal **micro threads** decrease the load transfer to crestal cortical bone which results in a significant bone preservation.

The concave geometry of the coronal **cutting flute** minimizes the pressure applied on the cortical bone.

The implant's advanced **threads shape** with sharp "attack angle" contributes to fast and smooth insertion while minimizing lateral stress after insertion.

**Body micro threads'** geometry makes the forces applied on the bone to be dispersed and thus, decreases the bone pressure.



## High Primary **Stability**

**Straight design of the coronal part of NeO** produces greater contact surface between the bone and the implant coronal part providing thus, better initial stability.

The osteotome like **tapered core** of the implant combined with slightly tapered implant **body** generate optimal bone condensing ability.

**Large pitch and variable threads** create optimal bone condensation while the two body micro-threads increase BIC.

The narrow tapered **apical part** of the implant penetrates easily to small diameter osteotomy. Its sharp and deep threads together with the **gripping tips** were developed to produce firm primary engagement as well as an increased primary stability.

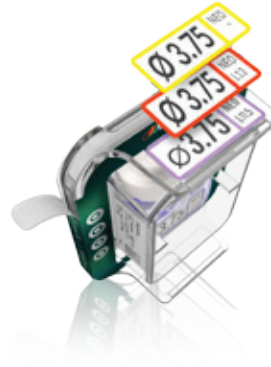
# Advanced System

NeO system includes narrow & standard implant line with a choice of implant-abutment connection platforms. NeO system is fully compatible to our current prosthetic parts and CAD/CAM restoration line, comes in a mountless package and an advanced grip drivers.



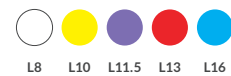
## Implant Package

Introducing a modern and easy to use package. Designed for maximum comfort and enhanced ergonomics



## Identification labels

Labels indicates implant's type, length and diameter



## Color coded holder

Holders are color coded for easy identification of implants length



**PATENT  
PENDING**

## Stack several packages together

The new packaging, features a unique design that enables to stack several packages together and keeps your stock organized with maximum storage space efficiency



1

Tear the cardboard



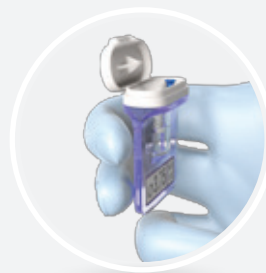
2

Pull the tyvek



3

Remove the inner holder



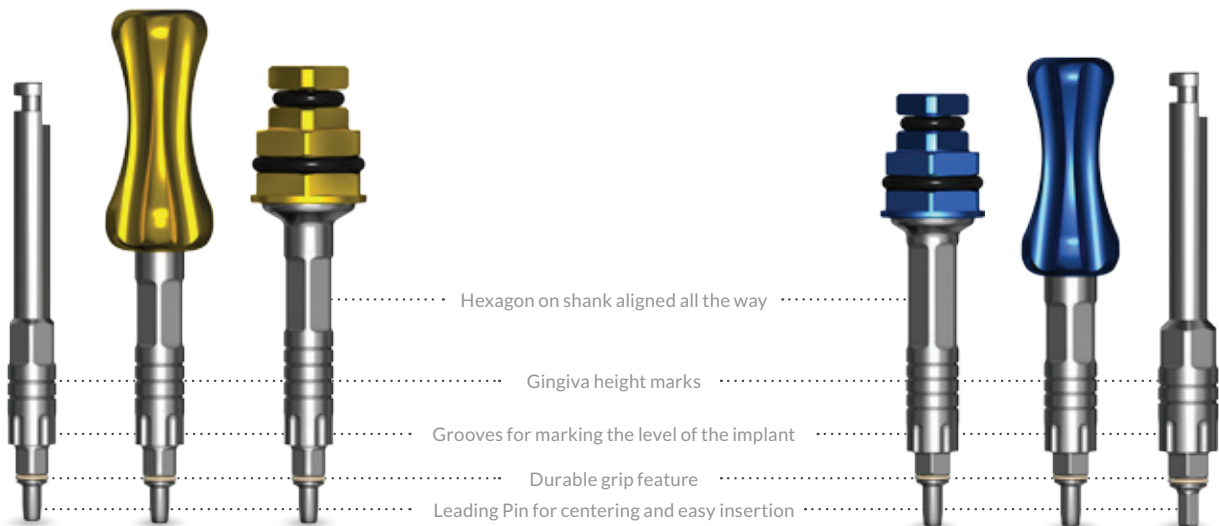
4

Open the cap - easy one hand operation

## Implant Grip Drivers

New and advanced grip driver for maximum confidence combined with modern design. Drivers are available for both Alpha-Bio Tec's platforms standard IH and narrow CHC, differentiated by color coding **Blue=IH**, **Gold=CHC**

The new design allows direct and secure implant pick-up from package to site due to its grip feature. Drivers are available in three different forms and in various lengths for physician's best practice.



5

Insert preferred driver in a continuously clockwise turn until hex is found  
(Ratchet is for illustration only)



6

Implant is now securely connected to driver and can be easily removed from package. Verify there is no gap between driver and implant



7

Implant can be inserted directly to site



8

Easily remove cover screw by using appropriate prosthetic driver

# Drill Protocol

Two Ways One Result

## Step Drilling Sequence

Ø Implant	Soft bone Type IV	Medium bone Type II&III	Hard bone Type I
Ø 3.2	2.0	2.0 2.4/2.8	2.0 2.4/2.8 2.8/3.0
Ø 3.5	2.0 2.0/2.4	2.0 2.4/2.8 2.8/3.0	2.0 2.4/2.8 2.8/3.2
Ø 3.75	2.0 2.4/2.8	2.0 2.4/2.8 2.8/3.2	2.0 2.4/2.8 2.8/3.2 3.2/3.65 Cortical
Ø 4.2	2.0 2.4/2.8 2.8/3.2	2.0 2.4/2.8 3.2/3.65	2.0 2.4/2.8 3.2/3.65 3.65/4.1 Cortical
Ø 5.0	2.0 2.4/2.8 3.2/ 3.65	2.0 2.4/2.8 3.2/3.65 3.65/4.1	2.0 2.4/2.8 3.2/3.65 3.65/4.1 4.1/4.5 4.5/4.8 Cortical



Cortical – Drill through cortical plate with the larger diameter

Demonstration of NeO recommended drill protocol with Ø 3.75/13 mm implant using step drills, Medium bone



1 Drill using the 2mm drill



2 Drill using the Step 2.4/2.8 mm drill



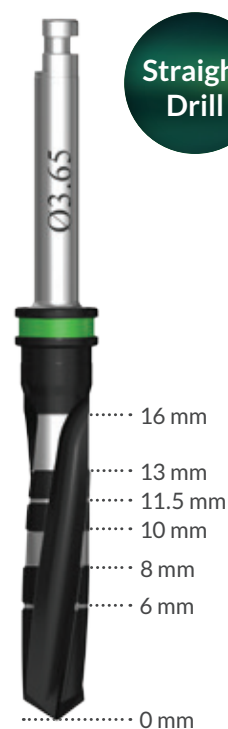
3 Drill using the 2.8/3.2 mm Step drill



4 Insert implant throughout the entire length prepared site until it reaches its final depth

## Straight Drilling Sequence

Ø Implant	Soft bone Type IV	Medium bone Type II&III	Hard bone Type I
Ø 3.2	2.0	2.0 2.4/2.8	2.0 2.8 2.8/3.0
Ø 3.5	2.0 2.0/2.4	2.0 2.8 2.8/3.0	2.0 2.8 2.8/3.2
Ø 3.75	2.0 2.4/2.8	2.0 2.8 2.8/3.2	2.0 2.8 2.8/3.2 3.65 Cortical
Ø 4.2	2.0 2.8 2.8/3.2	2.0 2.8 3.2 3.2/3.65	2.0 2.8 3.2 3.2/3.65 4.1 Cortical
Ø 5.0	2.0 2.8 3.2 3.2/3.65	2.0 2.8 3.2 3.65 3.65/4.1	2.0 2.8 3.2 3.65 4.1 4.1/4.5 4.8 Cortical



Cortical – Drill through cortical plate

Step drill can be replaced with straight drill by drilling 3mm less

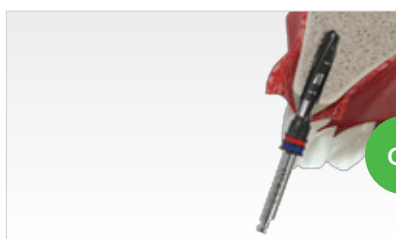
Demonstration of NeO recommended drill protocol with Ø3.75/13 mm implant using straight drills, Medium bone



1 Drill using the 2mm drill



2 Drill using the 2.8 mm drill



3 Drill using the 2.8/3.2 mm Step drill



4 Drill 3 mm less than the implants length using the 3.2 mm drill



5 Insert implant throughout the entire length prepared site until it reaches its final depth



OR

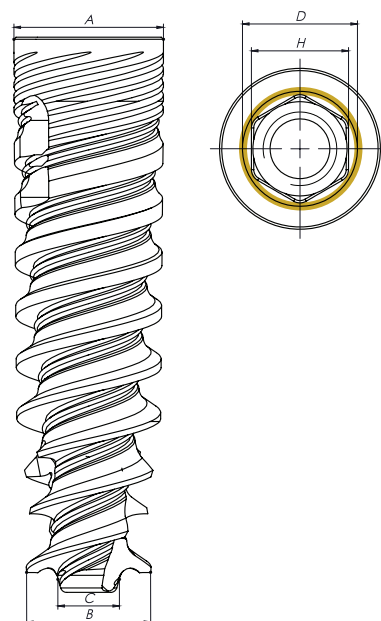
# Ordering Information

Experience NeO to fully understand how brilliant it is



The narrow system includes Ø 3.2 and Ø 3.5 mm implant diameters with conical hex connection for narrow spaces procedures, compatible with Alpha-Bio's CHC prosthetic system and CAD/CAM restoration

Diameter	Length	Ref. No.	Dimensions				
			A	B	C	D	H
Ø 3.2 	8 mm	1108	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1
	10 mm	1100	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1
	11.5 mm	1101	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1
	13 mm	1103	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1
	16 mm	1106	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1
Ø 3.5 	8 mm	1128	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1
	10 mm	1120	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1
	11.5 mm	1121	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1
	13 mm	1123	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1
	16 mm	1126	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	Ø 2.1



## Manual



## Motor Mount






## Ratchet

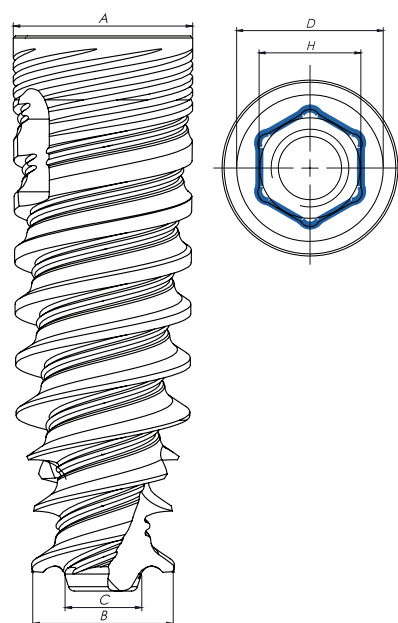




## Internal Hex Connection (IH)

The standard system includes Ø 3.75, Ø 4.2 and Ø 5.0 mm implant diameters with internal hex connection compatible with Alpha-Bio's IH prosthetic system and CAD/CAM restoration

Diameter	Length	Ref. No.	Dimensions				
			A	B	C	D	H
Ø 3.75 	8 mm	1168	Ø 3.75	Ø 3.1	Ø 1.8	Ø 3.5	Ø 2.5
	10 mm	1160	Ø 3.75	Ø 2.9	Ø 1.5	Ø 3.5	Ø 2.5
	11.5 mm	1161	Ø 3.75	Ø 2.9	Ø 1.5	Ø 3.5	Ø 2.5
	13 mm	1163	Ø 3.75	Ø 2.9	Ø 1.5	Ø 3.5	Ø 2.5
	16 mm	1166	Ø 3.75	Ø 2.9	Ø 1.5	Ø 3.5	Ø 2.5
Ø 4.2 	8 mm	1178	Ø 4.2	Ø 3.55	Ø 1.8	Ø 3.5	Ø 2.5
	10 mm	1170	Ø 4.2	Ø 3.3	Ø 1.8	Ø 3.5	Ø 2.5
	11.5 mm	1171	Ø 4.2	Ø 3.3	Ø 1.8	Ø 3.5	Ø 2.5
	13 mm	1173	Ø 4.2	Ø 3.3	Ø 1.8	Ø 3.5	Ø 2.5
	16 mm	1176	Ø 4.2	Ø 3.3	Ø 1.8	Ø 3.5	Ø 2.5
Ø 5.0 	8 mm	1188	Ø 5.0	Ø 4.4	Ø 2.6	Ø 3.5	Ø 2.5
	10 mm	1180	Ø 5.0	Ø 4.1	Ø 2.3	Ø 3.5	Ø 2.5
	11.5 mm	1181	Ø 5.0	Ø 4.1	Ø 2.3	Ø 3.5	Ø 2.5
	13 mm	1183	Ø 5.0	Ø 4.1	Ø 2.3	Ø 3.5	Ø 2.5



### Manual



MITD 2.5  
IH  
4146

### Motor Mount



GITL 1.25 L M  
IH  
4143



GITS 1.25 S M  
IH  
4145

### Ratchet



GITD 2.5 L  
IH  
4140



GITD 2.5 M  
IH  
4141



GITD 2.5 S  
IH  
4142

# neo

## THE NEXT SENSATION

by Alpha-Bio Tec.



### OUR WARRANTY – YOUR PEACE OF MIND

Alpha-Bio Tec's high quality products meet strict international standards. This is why we can provide you with a Lifetime Warranty for our wide range of implants. In any case of a defect in the product, implant rejection, fracture or contamination of the product, subject to filing a complaint report, Alpha-Bio Tec shall replace the defective merchandise.

#### Warranty:

Alpha-Bio Tec warrants that all products will be free of defects in materials and/or workmanship. This warranty applies to the original purchaser only. There are no warranties, express or implied, except this warranty, which is given in lieu of any other warranties, express or implied, including any implied warranty of fitness for a particular purpose.

#### Important - Read instructions before use.

A complaint report is available at Alpha-Bio Tec's customer service and will be sent upon demand.

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Alpha-Bio Tec's products are CE-marked in accordance with the Council Directive 93/42/EEC and Amendment 2007/47/ EC. Alpha-Bio Tec complies with ISO 13485: 2012 and the Canadian Medical Devices Conformity Assessment System (CMDCAS). Product availability may vary between countries.

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